

Ten cities of New York—Albany, Binghamton, Elmira, Hornell, Hudson, Ithaca, Rensselaer, Schenectady, and Troy—filtered their water and reduced a previous death rate 56 per cent. Evidence showing the relation of impure water to typhoid fever could be almost indefinitely continued, but enough has been said to sustain the relationship.

TYPHOID FEVER—ITS CAUSE (Continued).

HEALTH TALK No. XII.

Ideas to be presented—(a) Kind of food most apt to carry poison. (b) Percentage of milk epidemics. (c) How the germs get to the food. (d) Characteristics of milk epidemics. (e) Definition of contact infections. (f) Percentage of contact infections. (g) Where contact infection is most liable to occur.

FOOD ROUTE.

As cooking kills all germs, food containing typhoid germs must be food that has not been cooked, that is, *raw* food, or food that has been cooked and then handled by some one whose hands are contaminated with these germs. Naturally, the raw foods will be most likely to contain these germs. As milk is, by all odds, the commonest raw food consumed, and, as in cities it is handled by a large number of people before reaching the consumer, it is more often the means of transmission than all other raw foods combined. From 15 to 20 per cent of all epidemics are due to milk transmission. Occasionally other raw foods, such as oysters, clams, celery, water-cress, lettuce, onions, turnips and ice, may serve as the medium of transmission. Probably from 2 to 5 per cent of the total number of cases are carried by these foods. All of these raw foods—milk included—become the means of transmission by some one with the disease, or by some one who has had the disease and still carries the germs, having handled the food before it is swallowed; or by the handling of the food by some one who at the time is associated with a case of the disease: or by the vessels in which the food is contained having been washed in water that has become contaminated in some of the various ways mentioned under water route; or finally, by flies carrying the infectious material to the raw food over which they crawl. (See Fig. 3.)

There are a number of epidemics clearly traceable to milk. Characteristic of milk epidemics is the fact that when the town suffering has several dairies, over 90 per cent, often 95, 97, or even 98 per cent, of the cases will be on a single dairyman's route: these cases occur almost solely in the consumers of milk, and therefore the cases are more frequent in children than in adults, and more frequent among the better classes than the poorer classes, as the latter use less milk than the former; investigation nearly always reveals a case of the disease with